

**NEW SOURCE CONSTRUCTION PERMIT  
and MINOR SOURCE OPERATING PERMIT  
OFFICE OF AIR MANAGEMENT**

**Tower Automotive  
3301 Cline Road  
Corydon, Indiana 47112**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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|---|----------------|
| Operation Permit No.: MSOP 061-10826-00014                              |                |
| Issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Management | Issuance Date: |

This permit shall supersede all other existing approvals.

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## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a truck frame coating and preparation operation.

Authorized Individual: Eric Tuley  
Source Address: 3301 Cline Road, Corydon, Indiana 47112  
Mailing Address: 3301 Cline Road, Corydon, Indiana 47112  
Phone Number: (812) 738-5608  
SIC Code: 3711  
County Location: Harrison  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source, under PSD or Emission Offset Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emissions units and Pollution Control Equipment Summary

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This stationary source is approved to construct and operate the following emissions units and pollution control devices:

1. The following new equipment,
  - (a) eight (8) MIG welding stations, each with a maximum wire consumption of 57.7 lb/hr,
  - (b) one (1) E Dip Coater, with a maximum design throughput of 144 units per hour, and
2. The following existing equipment:
  - (a) one (1) 2.6 MMBtu/hr natural gas fired component parts washer,
  - (b) two (2) 5.4 MMBtu/hr natural gas fired side bar washers,
  - (c) one (1) 7.5 MMBtu/hr natural gas fired frame assembly washer,
  - (d) two (2) 3.75 MMBtu/hr natural gas fired rust proofing boilers,
  - (e) one (1) 5.0 MMBtu/hr natural gas fired rust proofing oven,
  - (f) one (1) 0.35 MMBtu/hr natural gas fired maintenance steam cleaner,
  - (g) five (5) 2.592 MMBtu/hr natural gas fired building heater units,
  - (h) one (1) touch up paint operation (utilizing the specified black lacquer with 1.42 pounds volatile organic compounds per gallon, only), with PM(PM10) overspray emissions controlled by a dry filter system, and
  - (i) two (2) 0.25 MMBtu/hr natural gas fired space heaters.

### A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

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This stationary source is not required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a not major source, as defined in 326 IAC 2-7-1(22);
- (b) It is not an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3);
- (c) It is not a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## **SECTION B GENERAL CONSTRUCTION CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **B.1 Permit No Defense [IC 13]**

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **B.2 Definitions**

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

### **B.3 Effective Date of the Permit [IC13-15-5-3]**

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

### **B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]**

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### **B.5 Modification to Permit [326 IAC 2]**

Notwithstanding Condition B.6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

### **B.6 Minor Source Operating Permit [326 IAC 2-6.1]**

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emissions units were constructed as proposed in the application. The emissions units covered in the New Source Construction Permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

- (e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

## SECTION C SOURCE OPERATION CONDITIONS

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|---------------|
| Entire Source |
|---------------|

### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of all criteria pollutants are less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

### C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of [326 IAC 2-6.1-6] whenever the Permittee seeks to amend or modify this permit.



- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
  - (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
  - (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
  - (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
- (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
  - (2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

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Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

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C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

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C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

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C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

## Testing Requirements

### C.9 Performance Testing [326 IAC 3-6]

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

## Compliance Monitoring Requirements

### C.10 Compliance Monitoring [326 IAC 2-1.1-11]

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

### C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]

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- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
  - (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :
    - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

- (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3) An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

**C.14 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**Record Keeping and Reporting Requirements**

**C.15 Malfunctions Report [326 IAC 1-6-2]**

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.16 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.17 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report/s do/does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.



## SECTION D.1

## EMISSION UNIT OPERATION CONDITIONS

- (a) eight (8) MIG welding stations, each with a maximum wire consumption of 57.7 lb/hr,
- (b) one (1) E Dip Coater, with a maximum design throughput of 144 units per hour,
- (c) one (1) 2.6 MMBtu/hr natural gas fired component parts washer,
- (e) two (2) 5.4 MMBtu/hr natural gas fired side bar washers,
- (f) one (1) 7.5 MMBtu/hr natural gas fired frame assembly washer,
- (g) two (2) 3.75 MMBtu/hr natural gas fired rust proofing boilers,
- (h) one (1) 5.0 MMBtu/hr natural gas fired rust proofing oven, and
- (i) one (1) 0.35 MMBtu/hr natural gas fired maintenance steam cleaner.

### Emission Limitations and Standards

#### D.1.1 Particulate Matter (PM) from the MIG Welding Operation [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the MIG welding operation shall not exceed 23.25 pounds per hour when operating at a process weight rate of 13.33 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

#### D.1.2 Miscellaneous Metal Coating Operations, E-Coater [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(d)(3), the volatile organic compound (VOC) content of coatings applied to the E-Coater shall be limited as follows:

| Coatings                 | Limit<br>(pounds of VOC/gallon of coating less water delivered to the applicator) |
|--------------------------|---|
| Extreme Performance Coat | 3.5   |

#### D.1.3 Miscellaneous Metal Coating Operations, E-Coater [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

#### D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this emissions unit and any control devices.

## **Compliance Determination Requirements**

### **D.1.5 Volatile Organic Compounds (VOC)**

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Compliance with the VOC content and usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

## **Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

### **D.1.6 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.2, the Permittee shall maintain records of amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

Said records shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.2.

- (b) To document compliance with Condition D.1.2, the Permittee shall maintain a log of any additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## **SECTION D.2**

## **EMISSION UNIT OPERATION CONDITIONS**

- |   |
|---|
| <ul style="list-style-type: none"><li>(a) five (5) 2.592 MMBtu/hr natural gas fired building heater units, and</li><li>(b) two (2) 0.25 MMBtu/hr natural gas fired space heaters.</li></ul> |
|---|

There are no requirements applicable to the combustion units.

## SECTION D.3

## EMISSION UNIT OPERATION CONDITIONS

one (1) touch up paint operation (utilizing the specified black lacquer with 1.42 pounds volatile organic compounds per gallon, only), with PM(PM10) overspray emissions controlled by a dry filter system.

### Emission Limitations and Standards

#### D.3.1 Particulate Matter (PM) Overspray from the Touch up Booth [326 IAC 6-3]

Pursuant to 326 IAC 6-3, the PM overspray emissions from the touch up booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

#### D.3.2 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this emissions unit and its control device.

#### D.3.3 Volatile Organic Compounds

There are no VOC emission limits that apply to the touch up booth at this time. However, any change or modification which may increase the actual VOC emissions to 15 pounds per day or more from the touch up booth must be approved by the Office of Air Management (OAM) before such change may occur.

### Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

#### D.3.4 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### **MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ? \_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ? \_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES? \_\_\_\_\_, 25 TONS/YEAR VOC ? \_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ? \_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ? \_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ? \_\_\_\_\_, 25 TONS/YEAR FLUORIDES ? \_\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ? \_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ? \_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ? \_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ? \_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ? \_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ PHONE NO. (    ) \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/19\_\_\_\_        AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/19\_\_\_\_        AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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**Indiana Department of Environmental Management  
Office of Air Management**

**Technical Support Document (TSD) for a New Source Construction and  
Minor Source Operating Permit**

**Source Background and Description**

|                       |                                    |
|-----------------------|------------------------------------|
| Source Name:          | Tower Automotive                   |
| Source Location:      | 3301 Cline Road, Corydon, IN 47112 |
| County:               | Harrison                           |
| Operation Permit No.: | 061-10826-00014                    |
| SIC Code:             | 3711                               |
| Permit Reviewer:      | SDF                                |

The Office of Air Management (OAM) has reviewed an application from Tower Automotive relating to the construction and operation of the following equipment:

1. The following new equipment,
  - (a) eight (8) MIG welding stations, each with a maximum wire consumption of 57.7 lb/hr,
  - (b) one (1) E Dip Coater, with a maximum design throughput of 80 units per hour, and
2. The following existing permitted equipment:
  - (a) one (1) 2.6 MMBtu/hr natural gas fired component parts washer,
  - (b) two (2) 5.4 MMBtu/hr natural gas fired side bar washers,
  - (c) one (1) 7.5 MMBtu/hr natural gas fired frame assembly washer,
  - (d) two (2) 3.75 MMBtu/hr natural gas fired rust proofing boilers,
  - (e) one (1) 5.0 MMBtu/hr natural gas fired rust proofing oven,
  - (f) one (1) 0.35 MMBtu/hr natural gas fired maintenance steam cleaner,
  - (g) five (5) 2.592 MMBtu/hr natural gas fired building heater units,
  - (h) one (1) touch up paint operation (utilizing the specified black lacquer with 1.42 pounds volatile organic compounds per gallon, only), with PM(PM10) overspray emissions controlled by a dry filter system, and
  - (i) two (2) 0.25 MMBtu/hr natural gas fired space heaters.

### Stack Summary

| Stack ID       | Operation      | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|----------------|----------------|---------------|-----------------|------------------|------------------|
| E-Coat         | E-Coat Line    | 42            | 2.25            | 30,000           | 150              |
| Touch up Booth | Touch up Booth | 22            | 3               | 16,000           | ambient          |

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on March 30, 1999.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (10 Pages).

The following is a listing of the attached spreadsheet emission calculations:

### Unrestricted Potential to Emit:

| Unit                      | PM           | PM10         | SO2         | NOx         | VOC          | CO           |
|---------------------------|--------------|--------------|-------------|-------------|--------------|--------------|
| Component Parts Washer    | 0.1          | 0.1          | Neg.        | 1.1         | 0.1          | 1.0          |
| Side Bar Washers          | 0.4          | 0.4          | neg.        | 4.7         | 0.3          | 4.0          |
| Frame Assembly Washer     | 0.2          | 0.2          | neg.        | 3.3         | 0.2          | 2.8          |
| Rust Proof Boilers        | 0.2          | 0.2          | neg.        | 3.3         | 0.2          | 2.8          |
| Rust Proof Oven           | 0.2          | 0.2          | neg.        | 2.2         | 0.1          | 1.8          |
| Maintenance Steam Cleaner | neg.         | neg.         | neg.        | 0.2         | neg.         | 0.1          |
| Building Heater Units     | 0.4          | 0.4          | neg.        | 5.7         | 0.3          | 4.8          |
| Space Heater              | neg.         | neg.         | neg.        | 0.2         | neg.         | 0.2          |
| E-Coater                  | -            | -            | -           | -           | 24.24        | -            |
| Touch up Booth            | 1.73         | 1.73         | -           | -           | 2.42         | -            |
| MIG Welders               | 48.73        | 48.73        | -           | -           | -            | -            |
| <b>Total</b>              | <b>51.96</b> | <b>51.96</b> | <b>neg.</b> | <b>20.7</b> | <b>27.86</b> | <b>17.50</b> |

### Potential Emissions After Controls:



The only emissions controlled are the touch up booth PM(PM10) overspray emissions which are controlled by a dry filter system with a design efficiency of 99%. The following calculations determine the touch up booth PM(PM10) potential emissions after controls.

**Potential Emissions After Controls = Potential Emissions Before Controls \* (1 - 0.99)**

**Potential Emissions After Controls = 1.73 ton/yr \* (1 - 0.99) = 0.0173 ton/yr**

The following table lists the potential emissions after controls:

| Unit                      | PM           | PM10         | SO2         | NOx         | VOC          | CO           |
|---------------------------|--------------|--------------|-------------|-------------|--------------|--------------|
| Component Parts Washer    | 0.1          | 0.1          | Neg.        | 1.1         | 0.1          | 1.0          |
| Side Bar Washers          | 0.4          | 0.4          | neg.        | 4.7         | 0.3          | 4.0          |
| Frame Assembly Washer     | 0.2          | 0.2          | neg.        | 3.3         | 0.2          | 2.8          |
| Rust Proof Boilers        | 0.2          | 0.2          | neg.        | 3.3         | 0.2          | 2.8          |
| Rust Proof Oven           | 0.2          | 0.2          | neg.        | 2.2         | 0.1          | 1.8          |
| Maintenance Steam Cleaner | neg.         | neg.         | neg.        | 0.2         | neg.         | 0.1          |
| Building Heater Units     | 0.4          | 0.4          | neg.        | 5.7         | 0.3          | 4.8          |
| Space Heater              | neg.         | neg.         | neg.        | 0.2         | neg.         | 0.2          |
| E-Coater                  | -            | -            | -           | -           | 24.24        | -            |
| Touch up Booth            | 0.0173       | 0.0173       | -           | -           | 2.42         | -            |
| MIG Welders               | 48.73        | 48.73        | -           | -           | -            | -            |
| <b>Total</b>              | <b>50.25</b> | <b>50.25</b> | <b>neg.</b> | <b>20.7</b> | <b>27.86</b> | <b>17.50</b> |

### Unrestricted Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

| Pollutant       | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM              | <b>51.96</b>                  |
| PM-10           | <b>51.96</b>                  |
| SO <sub>2</sub> | <b>neg.</b>                   |
| VOC             | <b>27.86</b>                  |
| CO              | <b>17.50</b>                  |
| NO <sub>x</sub> | <b>20.70</b>                  |

| HAP's        | Potential To Emit (tons/year) |
|--------------|-------------------------------|
| Single       | <b>2.42</b>                   |
| <b>TOTAL</b> | <b>2.42</b>                   |

- (a) The unrestricted potential to emit of particulate matter (PM), PM10, and volatile organic compounds (VOC) are equal to or greater than 25 tons per year after addition of the E-Coater and MIG welders. Therefore, the source shall be converted from a registered source to a source under a Minor Source Operating Permit (MSOP), pursuant to 326 IAC 2-6.1.

- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source HAP emissions do not make the source subject to the provisions of 326 IAC 2-7.

### Actual Emissions

No previous emission data has been received from the source.

### County Attainment Status

The source is located in Harrison County.

| Pollutant       | Status                       |
|-----------------|------------------------------|
| PM-10           | attainment or unclassifiable |
| SO <sub>2</sub> | attainment or unclassifiable |
| NO <sub>2</sub> | attainment or unclassifiable |
| Ozone           | attainment or unclassifiable |
| CO              | attainment or unclassifiable |
| Lead            | attainment or unclassifiable |

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Harrison County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Harrison County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

New source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited) including the new E-Coater and MIG welder emissions:

| Pollutant        | Emissions (ton/yr) |
|------------------|--------------------|
| PM               | 50.25              |
| PM10             | 50.25              |
| SO <sub>2</sub>  | neg.               |
| VOC              | 27.86              |
| CO               | 17.50              |
| NO <sub>x</sub>  | 20.70              |
| Single HAP       | 2.42               |
| Combination HAPs | 2.42               |

The addition of the E-Coater and MIG welders to this existing source changes the source status from a registered source to a "new" source under a Minor Source Operating Permit (MSOP) pursuant to 326 IAC 2-6.1.

This new source including the E-Coater and MIG welders is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

## Part 70 Permit Determination

### 326 IAC 2-7 (Part 70 Permit Program)

The source, including the E-Coater and MIG welders is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

## Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

The only possible NSPS, 40 CFR 60.390-60.398, Subpart MM, Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations, does not apply to the E-Coater or touch up booth because this rule applies to automobile or light duty truck assembly plants and this source is not an automobile or light duty truck assembly plant.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

## State Rule Applicability - Entire Source

### 326 IAC 2-6 (Emission Reporting)

This facility is not subject to 326 IAC 2-6 (Emission Reporting), because the source emits carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NOx), PM10, and sulfur dioxide (SO2) less than the applicable emission rate of 100 tons/yr of VOC.

### 326 IAC 5-1 (Opacity Limitations)

The proposed equipment are subject to 326 IAC 5-1. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

## State Rule Applicability - Individual Facilities

### 326 IAC 6-3 (Particulate Matter (PM) from the MIG Welding Operation)

The MIG Welding Operation is subject to 326 IAC 6-3. Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the MIG welding operation shall not exceed 23.25 pounds per hour when operating at a process weight rate of 13.33 tons per hour.

The pounds per hour limitation was calculated with the following equation:  
Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### 326 IAC 6-3 (Particulate Matter (PM) Overspray from the E-Coater)

326 IAC 6-3 does not apply to the E-Coater because the E-Coater is a dip coating process with an estimated transfer efficiency of 100% which results in no PM overspray emissions.

### 326 IAC 6-3 (Particulate Matter (PM) Overspray from the Touch up Booth)

The touch up booth is subject to 326 IAC 6-3. Pursuant to 326 IAC 6-3, the PM overspray emissions from the touch up booth shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)

326 IAC 8-2-2 does not apply to the E-Coater or the touch up booth because the VOC limitations of this rule apply to coating operations from automobile and light duty truck plants and this source is not an automobile or light duty truck assembly plant.

### 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations, E-Coater)

The E-Coater is subject to 326 IAC 8-2-9 because the SIC code is 3711, and it is not any of the exemptions of 326 IAC 8-2-9(b).

Pursuant to 326 IAC 8-2-9(d)(3), the volatile organic compound (VOC) content of extreme performance coatings applied to the truck frames by the E-Coater shall be limited as follows:

| Coatings                 | Limit<br>(pounds of VOC/gallon of coating less water delivered to the applicator) |
|--------------------------|---|
| Extreme Performance Coat | 3.5   |

The pounds VOC per gallon of coating less water of the coatings applied by the E-Coater are determined to be 0.32 and 2.17, respectively which are less than the limit of 3.5 lb/gal. Thus, compliance is determined to be achieved.

In addition, pursuant to 326 IAC 8-2-9(f), solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

### 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations, Touch up Booth)

The touch up booth is not subject to 326 IAC 8-2-9 because the potential emissions of 2.42 tons per year (13.26 lb/day) are less than the applicable level of 15 pounds per day.

### 326 IAC 8-1-6 (General Reduction Requirements, Touch up Booth)

The touch up booth is not subject to 326 IAC 8-1-6 because the potential emissions (2.42 ton/yr) are less than the applicable level of 25 tons per year.

### **Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

### **Conclusion**

The construction and operation of the source equipment shall be subject to the conditions of the attached proposed New Source Construction and Minor Source Operating Permit 061-10826-00014.

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for New Construction and Minor Source Operating Permit

Source Name: Tower Automotive  
Source Location: 3301 Cline Road, Corydon, Indiana 47112  
County: Harrison  
Operation Permit No.: 061-10826-00014  
SIC Code: 3711  
Permit Reviewer: SDF

On May 19, 1999, the Office of Air Management (OAM) had a notice published in the Corydon Democrat in Corydon, Indiana, stating that Tower Automotive had applied for a construction permit to construct and operate several welding stations, parts washers, and two painting operations. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On June 28, 1999, Tower Automotive submitted comments on the proposed construction permit. The summary of the comments and corresponding responses is as follows:

#### Comment #1

"(I)t has been discovered that incorrect process data was provided to the Indiana Department of Environmental Management (IDEM) Office of Air Management (OAM). Specifically, the permit as currently presented indicates that a total of eighty (80) units can be processed by the facility. In actuality, a total of one hundred forty-four (144) units can be processed."

#### Response #1

This is a production rate increase from 80 to 144 units. This will have an effect on the potential to emit for the painting operations. The calculation changes are as follows:

for the resin:  $(8.9 \text{ lb coating/gal. coating})(0.012 \text{ lb VOC/lb coating})(0.301 \text{ gal. coating/unit})(144 \text{ units/hour})(8760 \text{ hour/year})(1 \text{ ton/ } 2000 \text{ lb}) = 20.3 \text{ tons VOC/year}$

for the paste:  $(11.0 \text{ lb coating/gal. coating})(0.097 \text{ lb VOC/lb coating})(0.035 \text{ gal. coating/unit})(144 \text{ units/ hour})(8760 \text{ hour/year})(1 \text{ ton/ } 2000 \text{ lb}) = 23.55 \text{ tons VOC/year}$

This yields total emissions of  $(20.3 + 23.55) 43.85$  tons VOC per year. The emissions calculated previously with the process rate of 80 units per hour was 24.24 tons VOC per year. This is an emission increase of  $(43.55 - 24.24) 19.31$  tons VOC per year.

This emission increase by itself would be registration level. This increase will be allowed to be included with this permit. No conditions in the permit need to be changed due to this emission increase. No changes will be made to the Technical Support Document or the calculations. The throughput related to the E Dip Coater will be adjusted in the equipment listing in the permit. Section A.2 (1)(b) and the description (b) in Section D.1 will be changed to:

one (1) E Dip Coater, with a maximum design throughput of ~~80~~ **144** units per hour, and

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

Page 1 of 10

**Company** Nai Tower Automotive  
**Address City** 3301 Cline Road, Corydon, IN 47112  
**CP:** 061-10826  
**Pit ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-05-99

| Material       | Density<br>(Lb/Gal) | Weight %<br>Volatile<br>(H2O &<br>Organics) | Weight %<br>Water | Weight %<br>Organics | Volume<br>% Water | Volume %<br>Non-Volatiles<br>(solids) | Gal of Mat.<br>(gal/unit) | Maximum<br>(unit/hour) | Pounds VOC<br>per gallon of<br>coating less<br>water | Pounds VOC<br>per gallon of<br>coating | Potential<br>VOC pounds<br>per hour | Potential VOC<br>pounds per<br>day | Potential<br>VOC tons<br>per year | Particulate<br>Potential<br>(ton/yr) | Lb<br>VOC/gal<br>solids | Transfer<br>Efficiency |
|----------------|---------------------|---|-------------------|----------------------|-------------------|---------------------------------------|---------------------------|------------------------|--|--|-------------------------------------|------------------------------------|-----------------------------------|--------------------------------------|-------------------------|------------------------|
| Resin          | 8.9                 | 67.20%                                      | 66.0%             | 1.2%                 | 67.0%             | 31.79%                                | 0.30100                   | 80.000                 | 0.32   | 0.11                                   | 2.56                                | 61.38                              | 11.20                             | 0.00                                 | 0.33                    | 100%                   |
| Paste          | 11.0                | 60.00%                                      | 50.3%             | 9.7%                 | 51.0%             | 54.60%                                | 0.03500                   | 80.000                 | 2.17   | 1.06                                   | 2.98                                | 71.44                              | 13.04                             | 0.00                                 | 1.95                    | 100%                   |
| Touch Up Booth | 9.7                 | 58.31%                                      | 43.7%             | 14.6%                | 51.2%             | 28.10%                                | 0.04330                   | 9.000                  | 2.90   | 1.42                                   | 0.55                                | 13.25                              | 2.42                              | 1.73                                 | 5.04                    | 75%                    |

|                                  |   |             |               |              |             |
|----------------------------------|---|-------------|---------------|--------------|-------------|
| <b>State Potential Emissions</b> | <b>Add worst case coating to all solvents</b> | <b>5.53</b> | <b>146.07</b> | <b>26.66</b> | <b>1.73</b> |
|----------------------------------|---|-------------|---------------|--------------|-------------|

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Worst Coating + Sum of all solvents used

**Company** Tower Automotive  
**Address** 3301 Cline Road, Corydon, IN 47112  
**Permit No./** 061-10826-00014  
**Reviewer:** SDF  
**Date:** 04-06-99

| PROCESS                                | Number of Stations | Max. electrode consumption per station (lbs/hr) | EMISSION FACTORS * (lb pollutant / lb electrode) |         |    |       | EMISSIONS (lb/hr) |          |       |          | TOTAL HAPS (lb/hr) |
|--|--------------------|---|--|---------|----|-------|-------------------|----------|-------|----------|--------------------|
|  |                    |   | PM = PM10  | Mn      | Ni | Cr    | PM = PM10         | Mn       | Ni    | Cr       |                    |
| WELDING                                |                    |   |  |         |    |       |                   |          |       |          |                    |
| Submerged Arc                          | 0                  | 0   | 0.036  |         |    |       |                   |          |       |          | 0.000              |
| Metal Inert Gas (MIG)(ER5              | 8                  | 57.7  | 0.0241   | 3.4E-05 |    | 1E-05 | 11.125            | 0.015694 | 0.000 | 0.004616 | 0.020              |
| Stick (E7018 electrode)                | 0                  | 0   | 0.0211   |         |    |       |                   |          |       |          | 0.000              |
| Tungsten Inert Gas (TIG)(carbon steel) | 0                  | 0   | 0.0055   |         |    |       |                   |          |       |          | 0.000              |
| Oxyacetylene(carbon steel)             | 0                  | 0   | 0.0055   |         |    |       |                   |          |       |          | 0.000              |
| EMISSION TOTALS                        |                    |   |  |         |    |       | PM = PM10         | Mn       | Ni    | Cr       | Total HAPs         |
| Potential Emissions lbs/hr             |                    |   |  |         |    |       | 11.12             | 0.02     | 0.00  | 0.00     | 0.02               |
| Potential Emissions lbs/day            |                    |   |  |         |    |       | 266.99            | 0.38     | 0.00  | 0.11     | 0.49               |
| Potential Emissions tons/yr            |                    |   |  |         |    |       | 48.73             | 0.07     | 0.00  | 0.02     | 0.09               |

#### METHODOLGY

\*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.



**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

2.6

22.8

Pollutant

|                               | PM  | PM10 | SO2 | NOx                 | VOC | CO   |
|-------------------------------|-----|------|-----|---------------------|-----|------|
| Emission Factor in lb/MMCF    | 7.6 | 7.6  | 0.6 | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.1 | 0.1  | 0.0 | 1.1                 | 0.1 | 1.0  |

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

10.8

94.6

|                               | Pollutant |      |     |                     |     |      |
|-------------------------------|-----------|------|-----|---------------------|-----|------|
|                               | PM        | PM10 | SO2 | NOx                 | VOC | CO   |
| Emission Factor in lb/MMCF    | 7.6       | 7.6  | 0.6 | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.4       | 0.4  | 0.0 | 4.7                 | 0.3 | 4.0  |

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

7.5

65.7

|                               | Pollutant |      |     |                     |     |      |
|-------------------------------|-----------|------|-----|---------------------|-----|------|
|                               | PM        | PM10 | SO2 | NOx                 | VOC | CO   |
| Emission Factor in lb/MMCF    | 7.6       | 7.6  | 0.6 | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.2       | 0.2  | 0.0 | 3.3                 | 0.2 | 2.8  |

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

7.5

65.7

|                               | Pollutant |      |     |                     |     |      |
|-------------------------------|-----------|------|-----|---------------------|-----|------|
|                               | PM        | PM10 | SO2 | NOx                 | VOC | CO   |
| Emission Factor in lb/MMCF    | 7.6       | 7.6  | 0.6 | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.2       | 0.2  | 0.0 | 3.3                 | 0.2 | 2.8  |

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

5.0

43.8

|                               | Pollutant |      |     |                     |     |      |
|-------------------------------|-----------|------|-----|---------------------|-----|------|
|                               | PM        | PM10 | SO2 | NOx                 | VOC | CO   |
| Emission Factor in lb/MMCF    | 7.6       | 7.6  | 0.6 | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.2       | 0.2  | 0.0 | 2.2                 | 0.1 | 1.8  |

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

0.4

3.1

| Emission Factor in lb/MMCF    | Pollutant |      |     |                     |     |      |
|-------------------------------|-----------|------|-----|---------------------|-----|------|
|                               | PM        | PM10 | SO2 | NOx                 | VOC | CO   |
|                               | 7.6       | 7.6  | 0.6 | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0       | 0.0  | 0.0 | 0.2                 | 0.0 | 0.1  |

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

13.0

113.5

**Pollutant**

|                               | PM  | PM10 | SO2 | NOx                 | VOC | CO   |
|-------------------------------|-----|------|-----|---------------------|-----|------|
| Emission Factor in lb/MMCF    | 7.6 | 7.6  | 0.6 | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.4 | 0.4  | 0.0 | 5.7                 | 0.3 | 4.8  |

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler**

**Company Name:** Tower Automotive  
**Address City:** 3301 Cline Road, Corydon, Indiana 47112  
**CP:** 061-10826-00014  
**Plt ID:** 061-00014  
**Reviewer:** SDF  
**Date:** 04-08-99

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

0.5

4.4

|                               | Pollutant |      |                 |                     |     |      |
|-------------------------------|-----------|------|-----------------|---------------------|-----|------|
|                               | PM        | PM10 | SO <sub>2</sub> | NO <sub>x</sub>     | VOC | CO   |
| Emission Factor in lb/MMCF    | 7.6       | 7.6  | 0.6             | 100.0<br>*see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0       | 0.0  | 0.0             | 0.2                 | 0.0 | 0.2  |

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.